



All India Institute of Medical Sciences, Bhubaneswar
At - Sijua (Patrapada), Post - Dumuduma, Bhubaneswar (Odisha) - 751 019

To be uploaded in Website: www.aiimsbhubaneswar.edu.in (Tender) and www.eprocure.gov.in (CPPP)

Reference No: J-11049(029)/2021-22/S&P

Dated: 17 /06/2021

Sub: Procurement of High Frequency Oscillatory Ventilator Make- Vyaire Medical/Carefusion Sensormedics, USA Model- CareFusion 3100A for the Department of Pediatrics at AIIMS, BBSR on Proprietary basis - Inviting Comments thereon.

The Department of Pediatrics of AIIMS, Bhubaneswar has projected for **Procurement of High Frequency Oscillatory Ventilator Make- Vyaire Medical/Carefusion Sensormedics, USA Model- CareFusion 3100A** from authorized agent **M/s SBR Medical System, Delhi (proprietary article of care Fusion now Vyaire Medical , USA)...**

The Notice is being uploaded for general information of prospective manufacturer/Authorized Distributor/Dealers to submit their objection/proposal/comments if any, on proprietorship of the item. In case the product of any manufacturer/Authorized distributor/Dealer conforms to the enclosed specifications, they may submit their proposal for the supply of the same along with the brochures, point by point compliance of the enclosed specifications along with all documentary evidence. One quotation of the product may also be submitted.

The objections/comments/proposal should be sent in sealed cover to the Office of Sr. Procurement Cum Stores Officer, AIIMS, Bhubaneswar (Odisha) – 751019 or through E-mail to spo@aiimsbhubaneswar.edu.in & aso.dkmahana@aiimsbhubaneswar.edu.in, so as to reach on or before date: 02 -07-2021 failing which it will be presumed that no other firm is interested to offer comments/protest/object and case will be decided on its merits.

The Ref. No. – J-11049(029)/2021-22/S&P dt: 17-06-2021, due on dated: 02-07-2021 should be superscripted on sealed envelope.

Sr. Procurement-cum-Stores Officer

Enclosure:

1. Proprietary Article Certificate from Indenting Officer of Department of Pediatrics, AIIMS, Bhubaneswar. **Annexure-I**
2. PAC from Indian agent **Vyaire Medical Private Limited, New Delhi, PAC Firm - Vyaire Medical, USA, erstwhile Carefusion.. Annexure-II**
3. Authorisation Letter for distributor **M/s SBR Medical System, Delhi . Annexure-III**
4. Specification. **Annexure-IV**
5. Quotation from **M/s SBR Medical System, Delhi - Annexure-V**
6. Brochure of **Model CareFusion 3100A , - Annexure-VI**

Copy to:

- | | | |
|--|---|------------------------------|
| 1. Indenting Officer, Department of Pediatrics | : | for information please |
| 2. Accounts Officer | : | for information please |
| 3. IT Cell | : | for hoisting in the website. |


Sr. Procurement-cum-Stores Officer

Annexure - I

Valid for the Current Financial Year

As per document page 42
Krishna
31/5/24

Krishna
Signature of the Indenting Officer

Krishna Mohan Gulla
Associate Professor
Department of Pediatrics
MS. Bhubaneswar-751019

Date Designation of Officer.....

Date: 31st Jan 2020

TO WHOM SO EVER IT MAY CONCERN

Subject: Proprietary Technology - Vyair Medical 3100A High Frequency Oscillations Ventilators - Stand Alone HFOV

Vyair Medical erstwhile Carefusion is a worldwide manufacturer of Intensive Care Ventilators. Our product portfolio includes clinical differentiated products such as the 3100A/B Stand-alone HFOV, AVEA^(R), and VELA^(R) products.

Vyair Medical erstwhile Carefusion continues to hold US patents on the Stand alone HFOV technology

- 6085746 (Oscillating Ventilator apparatus and method)
- 8434482 (Closed loop control system for a High Frequency Oscillation Ventilator)
- 7861716 (Closed loop control System for a High Frequency Oscillation Ventilator)

The Vyair Medical 3100 HFOV:

- Only stand-alone HFOV approved by the US FDA
- Extensive research over the last 20 years with more than 200 papers published
- Square-wave driver
- Active exhalation

The 3100A series ventilator is the only FDA approved high frequency oscillatory ventilator for early intervention in the treatment of neonates in respiratory failure.

Our patented technology is a reliable, electromagnetic driven piston that is capable of providing active exhalation at rates between 180-900 breaths per minute. Active exhalation is critical to managing patient gas exchange at extremely high rates and airway pressures. This powerfully piston is capable of supporting neonates to paediatric patient applications.

The Stand Alone High-Frequency Oscillatory Ventilator is proprietary technology of Vyair Medical.

Should you need more information, please log on to www.vyair.com or contact us for further information.

Yours faithfully,

For and on behalf of Vyair Medical


Amit Raj

Director-South Asia Commercial Operation





42

January 15, 2021

Dear Customer,

As we continue our initiative to transition our branding to Vyairé Medical, Inc., we have an important update for our Ventilation and Respiratory Diagnostics customers.

Effective April 1, 2021, we will transition all customer-facing documents (including quotes, proforma Invoices, order confirmations, packing lists, customer invoices and credit notes) from:

CareFusion 203 to Vyairé Medical 203 and
CareFusion 211 to Vyairé Medical 211

The Vyairé name and logo will therefore replace that of CareFusion

Please follow these instructions in implementing the vendor change:

- Prior to April 1, continue to issue purchase orders and payments to CareFusion 203 and/or CareFusion 211
- Effective April 1, please update your vendor profile from CareFusion 203 to Vyairé Medical 203 and/or CareFusion 211 to Vyairé Medical 211. Remittance and Tax details are shown below.
- Beginning April 1, issue all Purchase Orders and Payments to the new vendor Vyairé Medical 203 and/or Vyairé Medical 211.
- **At this time, please do not consolidate any of your Vyairé vendors.**
- **Account / ID numbers will remain unchanged**

Our invoices still require payments to be separate for both the 211 and 203 entities. To avoid any delay in product deliveries or order processing, please continue to keep the vendor codes separate and all payment information the same.

Please note that for an undetermined period, you may receive products from Vyairé with CareFusion labeling however these will be identical to the products that you have received in the past. We will also continue to update our website to ensure the information is accurate.

We are happy to answer any questions you may have. Our Customer Service Center is centralized in our corporate office in Illinois and is open from 7:00 am to 5:00 pm Central time zone. The chart below is provided for your convenience in reaching us. We appreciate your business and patience as we continue our initiative to be fully Vyairé.

Thank you,

Sandy Adamczyk

Sandy Adamczyk
Director Customer Service

© 2021 Vyairé. Vyairé and the Vyairé logo are trademarks or registered trademarks of Vyairé Medical, Inc., or one of its affiliates.

Krishna
3/15/21
Dr. Krishna Mohan Gulla
Associate Professor
Department of Pediatrics
S. R. Bhambhaniwar-751019

Vendor Address - Current	Vendor Address - April 1 2021
CareFusion 203, Inc 17400 Medina Rd Suite 100 Plymouth, MN 55447	Vyaire Medical 203, Inc 26125 Riverwoods Mettawa, IL 60045
CareFusion 211, Inc 22745 Savi Ranch Pkwy Yorba Linda, CA 92887	Vyaire Medical 211, Inc 26125 Riverwoods Mettawa, IL 60045

Remit To - Current	Remit To - April 1 2021
CareFusion 203, Inc 23578 Network Place Chicago, IL 60673 Tax ID 33-0737273	Vyaire Medical 203, Inc 23578 Network Place Chicago, IL 60673 Tax ID 33-0737273
CareFusion 211, Inc 88253 Expedited Way Chicago, IL 60695-0001 Tax ID 16-1721349	Vyaire Medical 211, Inc 88253 Expedited Way Chicago, IL 60695-0001 Tax ID 16-1721349

International Customer Service Contact Information		
Hours of Operations: 7:00 AM - 5:00 PM Central Time		
Telephone		
Phone Orders & Inquiries		833-327-3284
Email Orders & Inquiries		
All Orders & Inquiries	Vyaire 203 & 211	RCIntlOrderAdmin@Vyaire.com

Krishna
3/15/21
Jr. Krishna Mohan Gulla
Associate Professor
Department of Pediatrics
IIMS, Bhubaneswar-75101



34

Annexure - II

VYAIRE MEDICAL PRIVATE LIMITED

Unit No. 706, 7th Floor,
World Trade Tower (WTT), Tower-B,
Plot No. C-1, Sector-16, Noida,
Gautam Buddha Nagar-201301,
UTTAR PRADESH
Tel: +91 120 4322273
www.vyairé.com

Date: May 13, 2021

The Director,
All India Institute of Medical Sciences,
(AIIMS), Bhubaneswar
Sijua, Patrapada, Bhubaneswar
Odisha-751019

SUBJECT: AUTHORITY LETTER

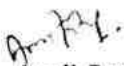
Dear Sir,

We, **Vyairé Medical**, are established and reputable manufacturer of **High Frequency Oscillatory Ventilator Model HFOV-3100A** having factories at **1100 Bird Center Dr. Palm Springs, CA 92262 USA** do hereby authorize **M/s. SBR Medical System**, Located at **270, First Floor, Pataparganj, Mayur Vihar, Phase-1, Delhi-110091** as our authorized distributor to submit a bid, process the same further, subsequently negotiate and enter into a contract with you for the above good manufactured by us.

We confirm that **M/s. SBR Medical System** will also cater the entire after sale service and technical support related issues on our behalf.

Yours faithfully,

For and on behalf of M/s. Vyairé Medical


Amit Raj
Director-South Asia
Commercial Operation




15/5/21
Dr. Krishna Mohan Gulla
Associate Professor
Department of Pediatrics
Bhubaneswar-751019

(Standalone HFO Ventilator)
Specifications for high frequency oscillatory ventilator for pediatric patients

- 1) Mode: High Frequency Oscillations with active exhalation technology
- 2) Technology of oscillations: Electromagnetically driven piston technology
- 3) The main unit should have US-FDA approval and certification for high frequency oscillation ventilation in neonates and pediatric *or European CE.*
- 4) The compressor should have US-FDA or European CE certification
- 5) Weight operation range: As low as 500 grams to as high as 35 kg.
- 6) Settings:
 - a) FiO₂: 21-100%
 - b) Frequency: 3-15 Hz
 - c) Oscillatory Pressure: up to 45 cm H₂O
 - d) Mean airway pressure: 3 - 45 cm H₂O
 - e) Amplitude (delta-P): 90 cm H₂O
 - f) Bias flow up to 40L/min
 - g) I:E Ratio: 1:1, 1:2, 1:3 or percent inspiratory time 30-50%
 - h) Sigh breath (optional)
 - i) Should be compatible with nitric oxide delivery system
- 7) Display: Mean Airway Pressure; Oscillatory Pressure amplitude, % inspiratory time, frequency, piston displacement and bias flow
- 8) Alarms:
 - a) High and low mean airway pressure
 - b) Oscillator overheated
 - c) Oscillator stopped
 - d) Power failure
 - e) Source gas flow low
 - f) Battery low
- 9) The unit should be mounted on a trolley / Pedestal stand with good quality castors
- 10) The unit should have an air compressor that can support high gas flow requirements of high frequency oscillation and should have connections online to automatically switch on when the piped central air supply pressure drops below the recommended limit.
- 11) Oxygen / Air delivery hoses as applicable. The vendor should also arrange to supply the nipples for the hoses that are compatible with hospital's AIR and O₂ supply sockets
- 12) **Power supply:** 220-240 V and 50-60 MHz
- 13) Each unit should have a circuit hanger to support the patient circuit.
- 14) The equipment should come with a warranty of 5 years from the date of satisfactory installation and 5 years comprehensive maintenance contract after the end of the warranty. Warranty and CMC

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30/3/21
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Associate Professor
Department of Pediatrics
IIMS, Bhubaneswar-751011

Suresh Kumar
31/3/21
Dr. SURESH KUMAR
Assistant Professor
Division of Pediatric Critical Care
Dept. of Pediatrics,
PGIMER, Chandigarh

4

should include all parts: plastic, metallic, glass, batteries, electronic, electrical and rubber. Warranty and CMC should cover the ventilator, compressor, humidifier, stand and any other parts. Warranty and CMC should include the periodic calibration of all parameters strictly as per manufacturer's recommendations and any spares, gases or standards required for that.

15) Rates of the chargeable accessories should be quoted for the total period 10 years (warranty and CMC) and should be frozen for that duration.

16) Essential accessories to be supplied with the initial equipment supply:

a) Single patient use special low compliance ventilator circuits suitable for high frequency oscillations - Patient circuit set should consist of the following items in each set.

1) Bellows with Water trap

2) 3100A Flexible Circuit for servo controlled humidifiers

3) cap and diaphragm set for HFOV 3100A, d) tube set non-filtered circuits (1 each red, blue and green). Total of 10 sets should be provided with the HFOV ventilator.

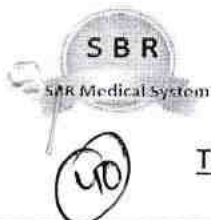
b) The unit should be supplied with stand alone heated humidifiers (1 no.) which can **servo control** the temperature based on the patient end temperature and gas flow rate in the circuit and of the latest model and complete with all accessories to make it operational.

c) For each humidifier: Temperature probes (2 nos.), Humidifier chambers reusable (2 nos.), heater wire adaptors suitable for both reusable and disposable circuits (2 nos.)

17) Price of the essential accessories should be quoted and frozen for the entire duration of the contract period (10 years)

K^oShul
30/3/21
Dr. Krishna Mohan Gulla
Associate Professor
Department of Pediatrics
JAS Bhawanagar-751019

31/3/21
Dr. SURESH KUMAR
Assistant Professor
Division of Pediatric Critical Care
Dept. of Pediatrics,
PGIMER, Chandigarh



SBR MEDICAL SYSTEM

A 270 First Floor PATPARGANJ, MAYUR VIHAR PHASE-1, DELHI-91,
Tell-011-22752453, MOB 8860089797, 9871406999 Email – sbrmedicalsystm@gmail.com
GSTIN: - 07BDGPK8659D1ZB

Quotation

Annexure-V

Date:-10-05-2021

To
All India Institute of Medical Sciences
Bhubaneswar-751019
Odisha

Ref: SBR/21-22/AIIMS/28

Sr. No.	Description	Qty.	Unit/price	Total Amt.
1	CareFusion 3100A (Sensormedics)- High Frequency Oscillation Ventilator. <u>Major Features :</u> Suitable for Premature to paediatric having body weight range from about 500gm onwards to 35 Kg. Electrically powered, electronically controlled HFOV with unique Active Expiratory Phase. Diaphragmatically sealed piston with adjustable displacement of the following: Operational Frequency : 3 - 15 Hz Bias Flow : 0 - 40 lpm Mean Airway Pressure : 3 - 45 cmH2O Amplitude (oscillatory Pressure) : > 90 cmH2O % Inspiratory Time : 30-50% Monitoring & Display of: Mean Airway Pressure, Amplitude (oscillatory Pressure), % Inspiratory Time, Frequency, Bias Flow, Piston Displacement Alarms: Safety (Dump Valve Open) > 50 cm H2O, Paw < 20% of set max, Paw, Power Failure, Oscillator Stopped, Oscillator Overheated, Alarm battery Low, Source Gas Low. Caution : Hospital will have to ensure uninterrupted power supply from UPS 220-240 Volts 50Hz Single Phase as well as uninterrupted supply of Compressed Air Source - essentials for running of the Oscillator. Each unit is supplied with: Driver Cover, Dummy Plate, Support Bracket for Patient Circuit ESSENTIAL 1) Hose Assy - O1 (Green), 2) Bird BLENDER w/O HOSES, 3) Hose Assy - Air (Yellow), 4) Humidifier F&P 850 with Chamber, heating wire adaptor and temperature flow probe on set. 5) <u>Patient Circuit Ship Kit.</u> • Kitted Circuit Comprises of the following items in each set: <u>Contains 4 nos. of Patient Circuit unfiltered circuits, Bellows of Water Trap, Cap diaphragm.</u> 6) Set of tubing's 1 Red, 1 Blue and 1 Green Make: Vyair Medical/CareFusion Sensormedics Country of Origin and Dispatch : USA (3100A Ventilator) NET PRICE IN Indian Rupees GST @12% GRAND TOTAL INR	1	3405295.00	34,05,295.00
		01	Included	
		01	Included	
		01	Included	
		01	Included	
		01	Included	
		2.5	Included	
		10	Included	
				34,05,295.00
				4,08,635.00
				38,13,930.00

Price Words in Indian Rupees: - Thirty Eight lakh Thirteen thousand Nine Hundred Thirty Rupees Only



31/05/21
Dr. Krishna Mohan Gulla
Associate Professor
Department of Pediatrics
AIIMS, Bhubaneswar-751019

SBR MEDICAL SYSTEM

A 270 First Floor PATPARGANJ, MAYUR VIHAR PHASE-1, DELHI-91,

Tell-011-22752453, MOB 8860089797, 9871406999 Email – sbrmedicalsystem@gmail.com

GSTIN: - 07BDGPK8659D1ZB

Date:-10-05-2021

Optional Accessories:-

s.n.	Description	Qty.	Price per.unit	Amount.
1.	*UPS APS 2KVA APC/Microtek with six batteries Pack. (Indian Make)	01 Set	81,700.00	81,700.00 Plus Gst
2.	*Air Compressor (Indian Make)	01 Nos.	71,000.00	71,000.00 Plus Gst

Terms and condition

1. Validity. 30 days from the date of quotation.
2. Delivery: 10-12 weeks confirm order with advance.
3. Payment: 100% advance with confirm order.
4. **Warranty: 5 years with spare from the date of Installation.**
5. Installation: free of cost.

COMPREHENSIVE MAINTENANCE CONTRACT (CMC) (With Spares & Labour)

Comprehensive Maintenance Contract Schedule and charges for 5 Years after expiry of warranty period (with spares & Labour).

Year	Unit Rate (INR)	Qty.	Total Amount (INR)
Rate for 6 th Year =	105400.00	1	105400.00
Rate for 7 th Year =	110700.00	1	110700.00
Rate for 8 th Year =	116300.00	1	116300.00
Rate for 9 th Year =	122100.00	1	122100.00
Rate for 10 th Year =	128200.00	1	128200.00

NOTE: The prices above are exclusive of GST which will be applicable as per prevailing rates.

Company Detail
SBR MEDICAL SYSTEM
270 A First Floor Patparganj,
Mayur Vihar Phase -1
New Delhi 110091

Bank Details of Bidder
ICICI BANK PVT LTD
C24-25, Acharya Niketan
Mayur Vihar Phase 1
New Delhi 110091
Account No: 629705017328
IFSC Code: - ICIC0006297

Authorized Signatory

For SBR MEDICAL SYSTEM

Krishna
31/05/21
Dr. Krishna Mohan Gulla
Associate Professor
Department of Pediatrics
MS. Bhubaneswar-751019

SBR MEDICAL SYSTEM

38

SBR
Medical System

A 270 First Floor PATPARGANJ, MAYUR VIHAR PHASE-1, DELHI-91,
Tell-011-22752453, MOB 8860089797, 9871406999 Email – sbrmedicalsystm@gmail.com
GSTIN: - 07BDGPK8659D1ZB

Date:-10-05-2021

List of Consumables of 3100A HFOV Ventilator

S.N.	Product Description	price in rupee
1.	3100A Flexible Circuit with Short Heated Wire. Box of 4. Single patient use. Fisher & Paykel MR850 Humidifier	69464
2.	Cap diaphragm set. Box of 4	26043
3.	Bellows & water trap set. Box of 4	48354
4.	Connecting Tubing Set – Unfiltered Circuits (one each of the red, blue and green tubing)	2604
5.	Humidifier Mounting Bracket for F&P 730 and 850	7162
6.	Heating wire adaptor Disposable	15561
7.	Humidifier Chamber	11466
8.	Pressure regulator PR 6	34140
9.	UPS Battery	12600
10.	Temperature Flow probe of Humidifier	16669

All Government taxes should Extra as applicable

Rate of spares and consumable is applicable for warranty & CMC only

Authorized signatory



for SBR MEDICAL SYSTEM

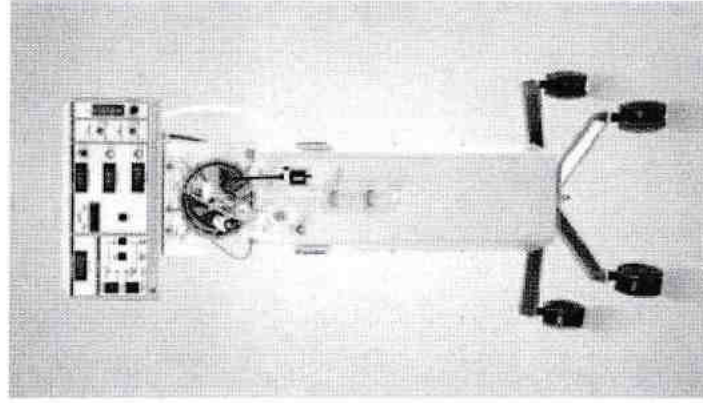
Krishna
31/05/21
Jr. Krishna Mohan Gult
Associate Professor
Department of Pediatrics
IIMS, Bhubaneswar-751019

3100A neonatal and pediatric high-frequency oscillatory ventilator

Specifications

The 3100 series goes beyond convention. The 3100A has changed the way clinicians around the world ventilate by setting the benchmark for open lung, low stretch and lung protective strategies. This unique technology was built upon the understanding that gentle lung recruitment and optimal ventilation require perfect balance.

12/5/5
V. 4/4/4



Controls and settings	
Bias flow	0 to 40 L/min
Mean airway pressure mPAW	3 to 45 cmH ₂ O
Max mean pressure limit	10 to 45 cmH ₂ O
Amplitude (Delta-P)	> 90 cmH ₂ O
Frequency	3 to 15 Hz
Percent inspiratory time	30% to 50%
Piston centering adjust	Applies electrical counterforce to piston coil to maintain piston centering

Pressure measurement	
Range	± 130 cmH ₂ O

Displays	
Mean airway pressure	
Amplitude (Delta-P)	
Percent inspiratory time	
Frequency	
Piston displacement	
Bias flow	

Specifications continued on next page

Alarms	
Safety (dump valve open)	
mPaw > 50 cmH ₂ O	
Mean airway pressure < 20% of "set max Paw"	
Warnings	
High mean airway pressure	
Low mean airway pressure	
Caution	
Oscillator overheated	
Battery low	
Source gas low	
Power failure	
Oscillator stopped	
45 second alarm silence	

Specifications subject to change without notice

⚠ WARNING—U.S. Federal Law restricts this device to sale by or on the order of a physician.

CareFusion
 22745 Savi Ranch Parkway
 Yorba Linda, CA 92887
 800.231.2466 toll-free
 714.283.2228 tel
 714.283.8493 fax

CareFusion Germany 234 GmbH
 Leibnizstrasse 7
 97204 Hoechberg
 Germany
 +49 931 4972-0 tel
 +49 931 4972-423 fax

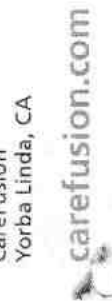


CareFusion
 Yorba Linda, CA

carefusion.com

Electrical/pneumatic	
115 VAC, 7.5A, 60 Hz	
100 VAC, 7.5A, 50 Hz	
220 VAC, 4.0A, 50 Hz	
220 VAC, 4.0A, 60 Hz	
240 VAC, 4.0A, 50 Hz	
Power	800 watts (maximum)
Leakage current	< 100 µAmp
Inlet from blender (Air/O ₂)	40–60 psig (2.8–4.1 bar), 40 L/min (±10%) maximum flow
Cooling air inlet	40–60 psig (2.8–4.1 bar), 10 L/min (±10%) flow
Safety standards: Conforms to UL STD 60601-1. Certified to CAN/CSA STD C22.2 No. 601-1-M90	

Physical	
Height	53.8" (136.7 cm)
Width	18.6" (47.2 cm)
Depth	11.4" (29 cm)
Weight	143 lbs (65 kg)



CareFusion



Delivering superior training, support and warranty

CareFusion offers a full range of training and support with dedicated Clinical Application Specialists. Our training centers are located worldwide and include hands-on training and clinical applications labs taught by experienced clinicians and engineers. Onsite training is also available.

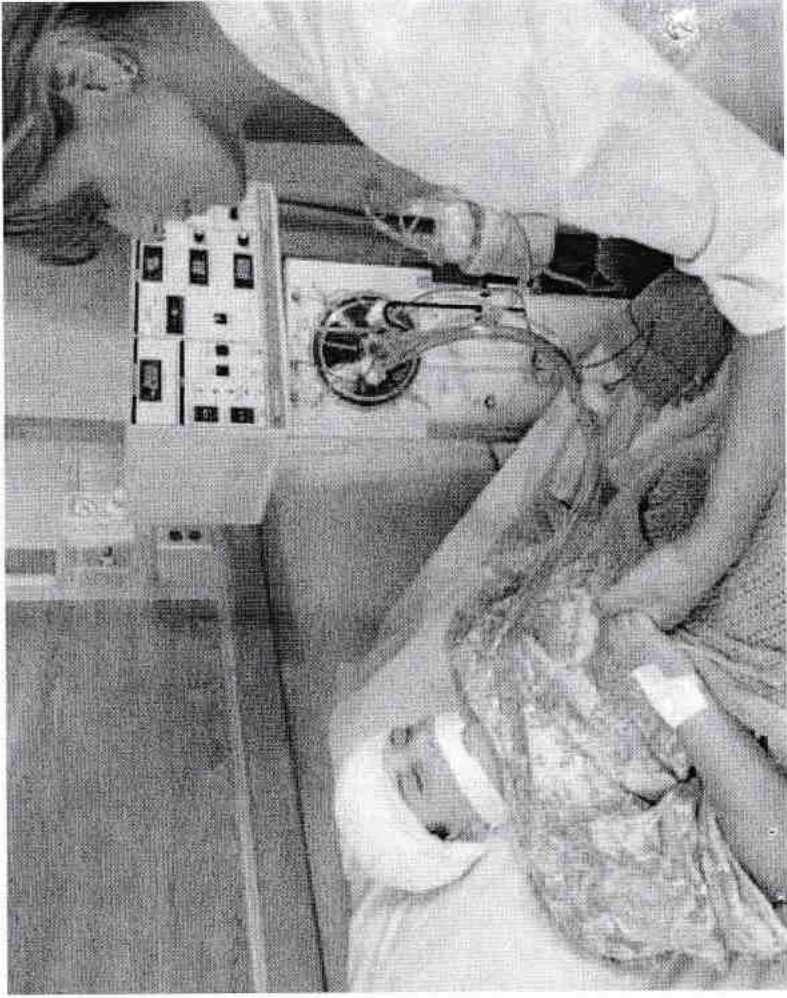
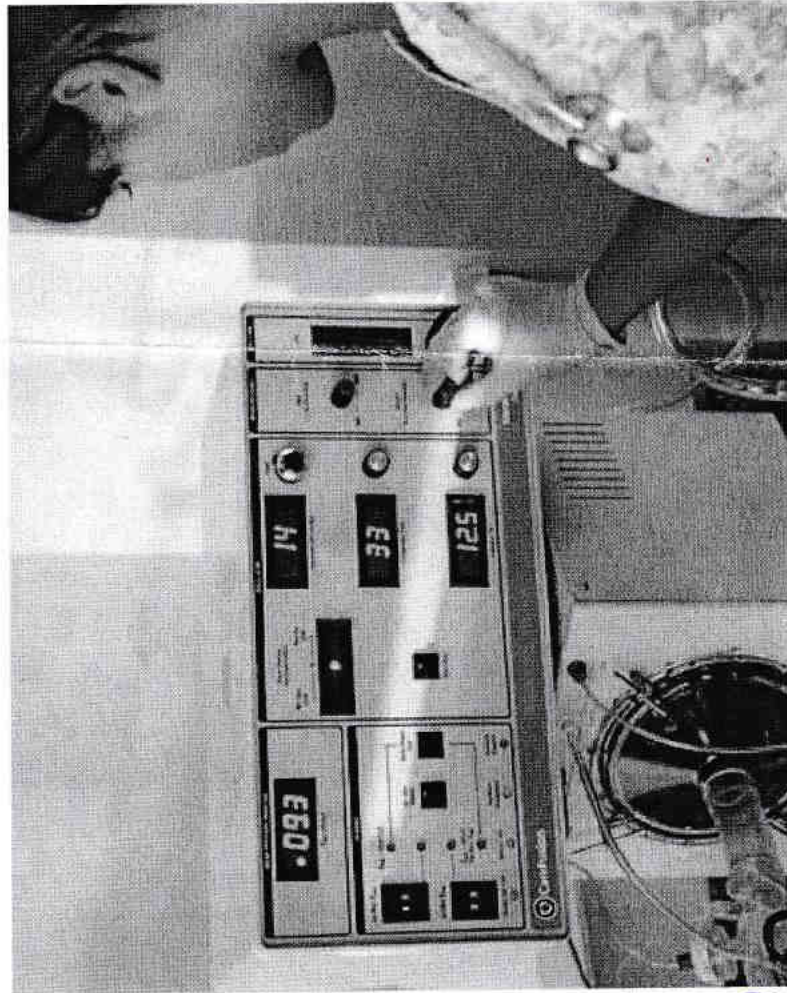
CareFusion offers standard and extended warranties customized to fit your needs. You can be assured that your devices are covered and that we have a full-service Customer Support department available whenever you require assistance. Our Technical Support Specialists are available around-the-clock for your urgent clinical and technical questions.

Connecting global evidence-based practitioners

The 3100A HFOV has changed the way clinicians around the world ventilate by setting the benchmark for open lung, low stretch lung protective strategies. This unique technology was built upon the understanding that optimal lung recruitment and gentle ventilation create a perfect balance.

- The 3100A HFOV works by gently inflating the lungs with a continuous distending pressure and superimposing very small pressure and volume oscillations
- In the United States, the 3100A HFOV remains the only high-frequency ventilator that is FDA approved to be sold for early intervention in the treatment of neonates in respiratory failure
- The 3100A HFOV is in use at more than 90% of the Level III nurseries and 75% of pediatric intensive care units^{6,9}

*Long
standing*





References

1. Slutsky A, Tremblay L. Multiple System Organ Failure. ARCCM. 1998;157: 1721-1725.
2. Jinai Y, et al. Comparison of Lung Protective Strategies Using Conventional and High Frequency Oscillatory Ventilation. J Appl Physiol. 2001 91: 1836 - 1844.
3. Gerstman DR, et al. Childhood Outcomes After Early HFOV for Neonatal Respiratory Distress Syndrome. Pediatrics 2001, Vol 108 No. 3: 618-623.
4. Pillow J. High Frequency Oscillatory Ventilation: Mechanism of Gas Exchange and Lung Mechanics.
5. Hobard L. Evaluation of Neonatal Intensive Care Technologies. From The Future of Children, A Publication of the David and Lucille Packard Foundation. 1995; Vol 5 No 1.
6. Internal data on file at CareFusion.

 **WARNING**—U.S. Federal Law restricts this device to sale by or on the order of a physician.

 **CareFusion**
22745 Savi Ranch Parkway
Yorba Linda, CA 92887
800.231.2466 toll-free
714.283.2228 tel
714.283.8493 fax

 **CareFusion Germany 234 GmbH**
Leibnizstrasse 7
97204 Hoechberg
Germany
+49 931 4972-0 tel
+49 931 4972-423 fax



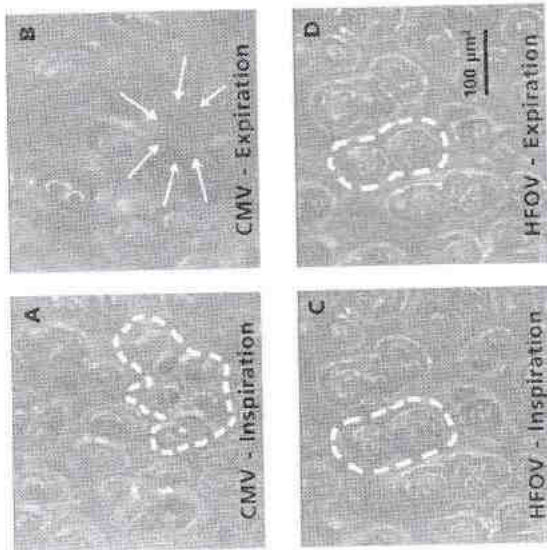
CareFusion
Yorba Linda, CA
carefusion.com



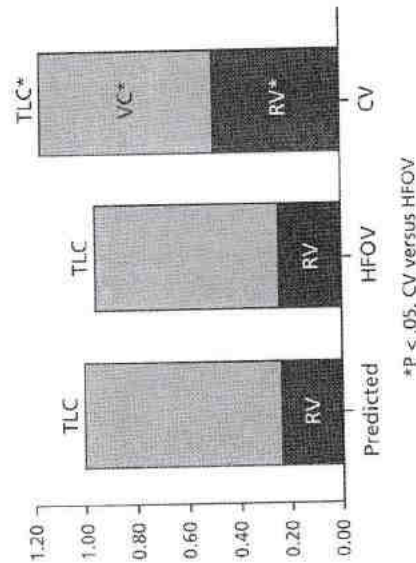
Empowering clinicians with proven lung protection strategies

When the lung is damaged by conventional ventilation, it may lead to chronic changes. Other organs may be compromised by harmful cytokines and proteins released into the bloodstream.¹ The 3100A high-frequency oscillatory ventilator (HFOV) can decrease the risk of these complications by maintaining a constant distending pressure and normalizing the end expiratory lung volume.²

In randomized controlled trials with more than 1100 newborns and children, the 3100A HFOV has been proven to improve oxygenation and significantly reduce the chronic lung disease normally associated with prematurity or mechanical ventilation. Even at six to eight years old, children who were managed with the 3100A HFOV had significantly better lung function than patients managed using conventional ventilation methods in randomized controlled trials.³



The repeated derecruitment and recruitment of alveoli caused by conventional ventilation can lead to lung injury. HFOV can decrease this risk by maintaining a constant distending pressure and normalizing the end expiratory lung volume.



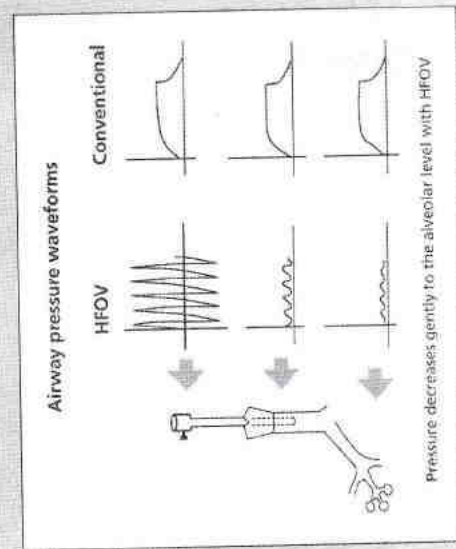
For the Conventional Ventilation (CV) group, there was an increase in Residual Volume (RV) above normal, which was significantly higher than the value for the HFOV group. An increase in RV is consistent with the finding of obstructive lung disease.³

Advancing ventilation beyond convention

In contrast to other high-frequency devices that only supplement a second conventional ventilator, the 3100A HFOV is capable of complete, stand-alone ventilation of your pediatric and neonatal patients.

The 3100A HFOV:

- Gently delivers 1 to 3 mL tidal volumes to ventilate the most premature infant and delivers up to 180 mL to support the ventilation of pediatric patients
- Produces an active exhalation,⁴ which is essential at high frequency respiratory rates to prevent air trapping that may occur with passive exhalation
- Offers patented technology and a highly reliable, electromagnetically driven piston that distinguishes it from other high frequency ventilators
- Permits variable I:E ratios, which are desirable for managing ventilation and reducing the risk of air trapping



3100A neonatal and pediatric high-frequency oscillatory ventilator

The 3100A ventilator goes beyond convention by empowering clinicians to deliver high-frequency oscillatory ventilation to both neonatal and pediatric patients.

